



State of New Hampshire  
DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095

(603) 271-3406 FAX (603) 271-7894



November 13, 2002  
**Letter of Deficiency**  
DAM #146.22

Mr. Bayne Stevenson  
41 Davison Lane  
Lyme, NH 03768

RE: Hermit Hill Farm Pond Dam, Lyme

Dear Mr. Stevenson:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that plays a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on November 14, 2001 and September 26, 2002. During this visual inspection and/or file review, the following deficiencies were observed:

1. The outlet pipe was submerged. During a previous inspection there was evidence of corrosion on the pipe's interior. The base of the outlet pipe shows signs of corrosion. The outlet was obscured with vegetation;
2. The riser was filled with beaver debris and it appeared that stones and mud had been placed around the drop inlet;
3. There are a few small pine trees present on the upstream face of the dam;
4. There are small pine trees with the limits of the emergency spillway; and
5. There is a line of pine trees along the downstream edge of the dam crest. Per a July 21, 1976 memo the trees were allowed to remain because the slope on the downstream side of the dam is a 4:1 slope. Presently these trees are greater than 20 feet in height and greater than 24-inches in diameter. According to recent publications on tree diameter versus root ball size and root systems, the root balls (20-foot diameter) for these trees takes up the entire crest of the dam. The root systems (90-foot diameter) could easily inhabit the entire earthen dam.

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

**November 1, 2003:**

1. Clear the interior and the area immediately around the riser pipe that was filled with beaver debris, and return the drop inlet pipe to a free-flowing condition;
2. Investigate the cause for the outlet pipe being submerged. Remove downstream obstructions. Remove vegetation from the vicinity of the outlet pipe and inspect the condition of the pipe;

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3. Remove the line of pine trees along the downstream edge of the dam crest. Refer to the enclosed information on tree growth on dams;
4. Remove the small pine trees present on the upstream face of the dam and within the limits of the emergency spillway;
5. Prepare and submit to the DES a written operational procedure plan. The plan should describe the control of impoundment levels, monitoring and maintenance procedures, and identify emergency contact personnel. Refer to the enclosed guidelines; and
6. Make arrangements to have the interior of the principle spillway (drop inlet and outlet pipe) inspected. Due to the small size of this pipe, an internal investigation using a video camera may be necessary. Replacement of principle spillway may be needed since these pipes are nearing the end of their predicted 30-year life.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the top of the previous page.

Sincerely,

A large, stylized handwritten signature in black ink, which appears to read "Grace E. Levergood". The word "COPY" is printed in large, bold, black letters across the signature.

Grace E. Levergood, P.E.  
Dam Safety Engineer

Attachments Guideline for an O&M plan, DB8, DB13

cc: Gretchen Rule

Town of Lyme

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